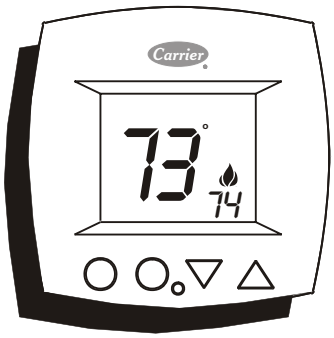
OWNER'S MANUAL **P/N 50QE900-NPWS**

AQUAZONE

Commercial Digital Thermostat



- Dual Setpoint
- Large, Easy To Read Display
- Thermoglow™ Backlight
- No Batteries Required
- Auto Changeover
- Adjustable Deadband
- B or O Terminal
- Locking Keypad
- Locking Cover with Tamper proof Screws
- F or C

Designed for Commercial Water Source Heat Pumps

Carrier®

Commercial Systems & Services © Carrier Corporation 3/00

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CAUTION

Follow *Installation Instructions* before proceeding.

SET THERMOSTAT TO MODE "OFF" PRIOR TO CHANGING SETTINGS IN SETUP OR RESTORING FACTORY DEFAULTS.

P/N 50QE900-NPWS

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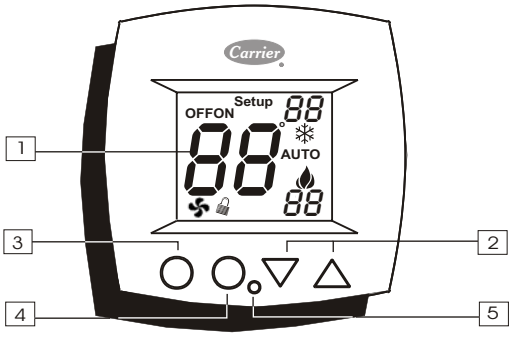
Front Panel



1 **Liquid Crystal Display**
with Thermoglow™

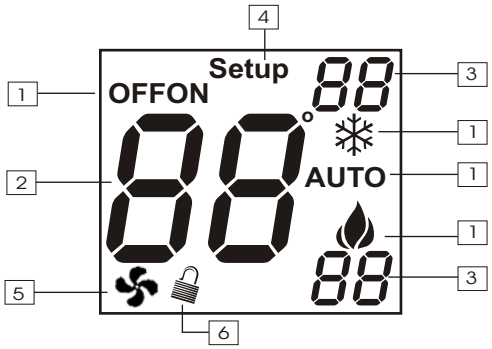
2 **Up/Down Buttons**

3 **Mode Button**

4 **Fan Button**

5 **Heat or Cool Indicator**
Heat = Red, Cool = Green

Display



1 Mode Indicators
Selects the operation mode of the equipment.

- indicates the heat mode.

- indicates the air conditioning mode.

AUTO - indicates the system will automatically changeover between heat and cool modes as the temperature varies.

OFF - indicates the entire system is turned off.

2 Room Temperature Display
Indicates the current room temperature.

3 Desired Set Temperature
Indicates desired room temperature(s). *Page 6.*

Display

4 Setup Indication
Indicates the thermostat is in the Advanced Setup mode. *Page 7.*

5 Fan Operation Indication
- indicates constant, continuous fan operation.
When **Fan On** is not lit - indicates the fan will only operate when necessary to heat or to cool. *Page 6.*

6 Locked Indication
appears after the right combination of buttons are pressed, rendering the buttons inoperative. *Page 12.*

Basic Operation

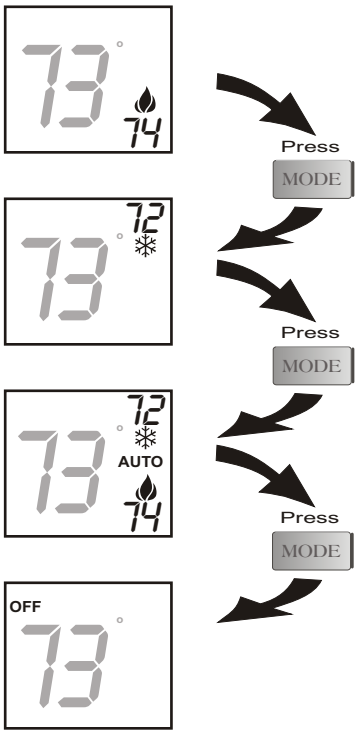
Select Mode

*The **HEAT** setting indicates the temperature the room has to reach before the furnace will turn on to heat the room.*

*The **COOL** setting indicates the temperature the room has to reach before the air conditioner will turn on to cool the room.*

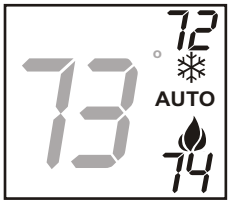
***AUTO** will automatically select heat or cool based on room temperature demand.*

***OFF** indicates both heating and air conditioning systems are turned off.*



Basic Operation

Select Desired Temperature



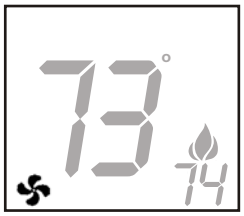
In any mode, adjust the desired Set Temperature with

buttons.

Pressing the up/down buttons in Auto mode will adjust **both** the heat and cool set temperatures simultaneously.
Pressing the up/down buttons in Heat **or** Cool modes will adjust only the heat **or** cool set temperature.

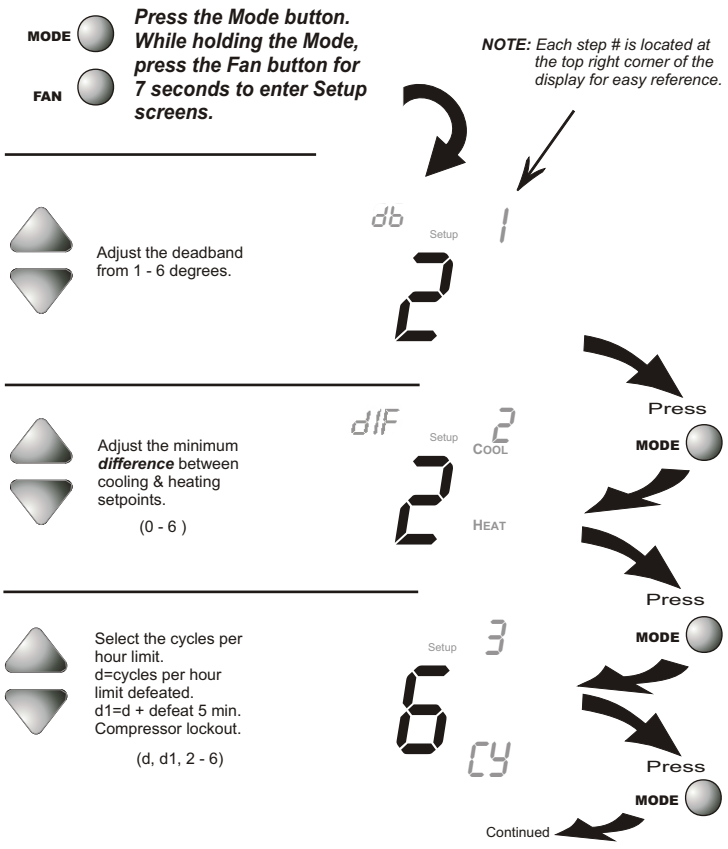
Fan Operation

Press FAN

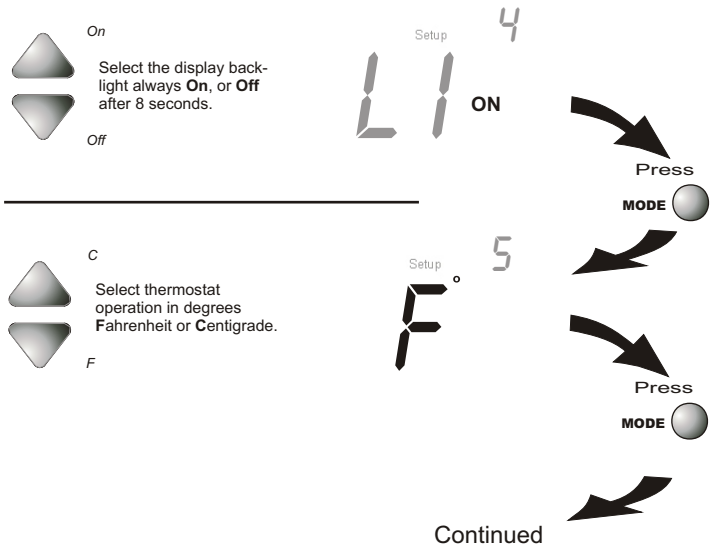


indicates constant fan operation. This feature is active even if the thermostat is set to **Off**.

Advanced Setup



Advanced Setup

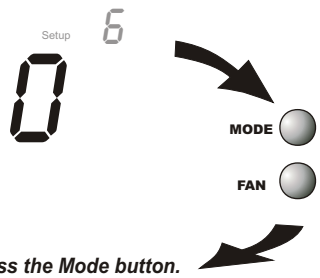


Advanced Setup

B

Select the reversing valve polarity for Heat Pump, O or B.
*(Step 2 only appears if heat pump is **on** in step 1)*

O



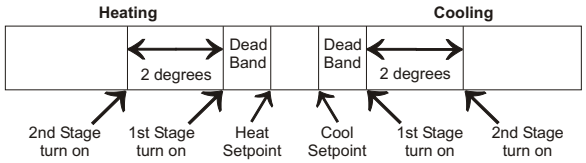
Press the Mode button. While holding the Mode, press the Fan button for 2 seconds to leave the Setup screens. If no buttons are pressed, the display will leave the setup screens after 30 seconds.

Advanced Setup Table

Step #	Description	Range	Factory Default
1	Deadband or Temperature swing	1 - 6	2
2	Forced minimum difference heat/cool	0 - 6	2
3	Cycles per hour	d, d1, 2 - 6	6
4	Thermoglow backlight	Off / On	On
5	Fahrenheit or Centigrade	F / C	F
6	Reversing Valve polarity	O / B	O

About Advanced Features & Operation

- 2 STAGE OPERATION - The 2nd Stage of heat or cool is turned on when (**1**) the 1st Stage has been on for a minimum of two minutes, **and** (**2**) the temperature spread from the setpoint is equal to or greater than: *the setpoint plus the deadband, plus 2 degrees.*



- MINIMUM HEAT/COOL SETPOINT DIFFERENCE - The Heat and Cool setpoints will not be allowed to come any closer to each other than the value set in Advanced Setup *step # 2, on page 7*. This minimum difference is enforced during Auto changeover and Program On operation.

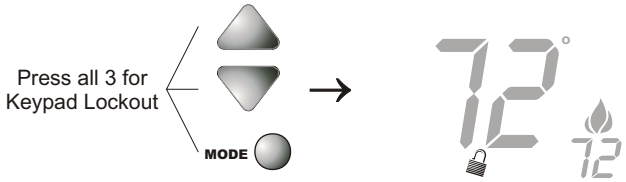
About Advanced Features & Operation

- EMERGENCY HEAT - To turn on Emergency Heat press in the Fan button. While holding the Fan button press the Up button for 2 seconds. The Cool setpoint display will read ‘EH’.

During Emergency Heat the thermostat will turn on the fan and the 2nd stage of heat, when there is a demand for heat, locking out the 1st stage compressor. Exiting Emergency Heat is the same as entering. During Emergency Heat only OFF and HEAT are available.

About Advanced Features & Operation

- KEYPAD LOCK - To prevent unauthorized use of the thermostat, the front panel buttons may be disabled. To disable, or 'lock' the keypad, press and hold in the Mode button. While holding the Mode button in, press the Up and Down buttons in together. The **Locked** icon will appear on the display.



To ***unlock*** the buttons, again press and hold the Mode button. While holding the Mode button in, press the Up and Down buttons in together. The **Locked** icon will disappear from the display.

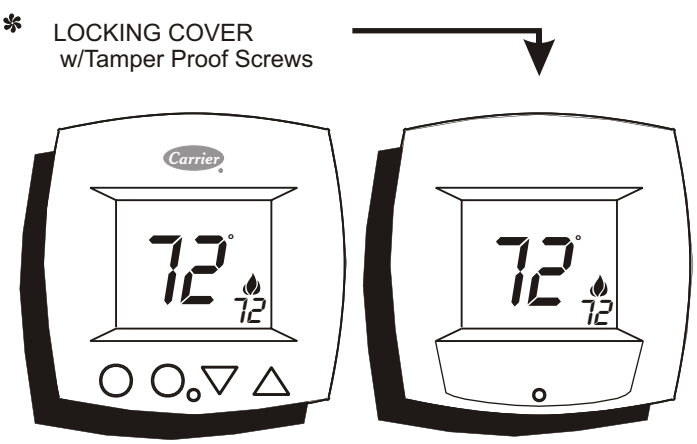
About Advanced Features & Operation

- DUAL SETPOINT BEHAVIOR - The adjustable setpoint range is: 35 - 99 degrees in Fahrenheit and 7 - 35 degrees in Centigrade. When in the modes Heat or Cool, this adjustable range is unhampered.
  When adjusting any Auto mode, the thermostat will not allow the Heat setpoint to get closer to the Cool setpoint than the value programmed as the minimum difference in *step 2, page 7.*
  When entering the Auto mode from Cool, the Heat and Cool setpoints will remain spread apart by the amount that they were adjusted, prior to entering Auto.
  For example: If the Cool setpoint was set to 80 while in the Cool mode and the Heat setpoint was adjusted to 70 while in the Heat mode, upon entering the Auto mode the Heat and Cool setpoints would be 80 and 70. **Both** setpoints would then move up and down together, (in this example spread by 10 degrees), by pressing the up or down buttons.
  To move the Heat and Cool setpoints closer together, enter the Cool or Heat mode by pressing the Mode button, then adjust the setpoint(s) closer together. Heat is limited to how close it can come to Cool by *step 2, page 7*.

About Advanced Features & Operation

* FACTORY DEFAULTS - If, for any reason it is desirable to return all stored settings back to the factory default settings, press the Mode button. While holding the Mode button in, press the Down button for 2 sec. All icons will appear. Press and hold in the Fan button until **Fd** appears. This resets all factory settings. **<u>To calibrate room temperature,</u>** press the Mode button once more. At this point use the Up and Down buttons to calibrate room temperature, if needed. Press the Mode button to return to normal operation. ***NOTE CAUTION ON PAGE 1.***

* LOCKING COVER
w/Tamper Proof Screws



Warranty

One-Year Warranty - This Product is warranted to be free from defects in material and workmanship. If it appears within one year from the date of original installation, whether or not actual use begins on that date, that the product does not meet this warranty, a new or remanufactured part, at the manufacturer's sole option, to replace any defective part will be provided without charge for the part itself; PROVIDED the defective part is returned to the distributor through a qualified servicing dealer.

THIS WARRANTY DOES NOT INCLUDE LABOR OR OTHER COSTS incurred for diagnosing, repairing, removing, installing, shipping, servicing or handling of either defective parts or replacement parts. Such costs may be covered by a separate warranty provided by the installer.

THIS WARRANTY APPLIES ONLY TO PRODUCTS IN THEIR ORIGINAL INSTALLATION LOCATION AND BECOMES VOID UPON REINSTALLATION.

LIMITATIONS OF WARRANTIES – ALL IMPLIED WARRANTIES (INCLUDING IMPLIED WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE AND MERCHANTABILITY) ARE HEREBY LIMITED IN DURATION TOT THE PERIOD FOR WHICH THE LIMITED WARRANTY IS GIVEN. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE MAY NOT APPLY TO YOU. THE EXPRESSED WARRANTIES MADE IN THIS WARRANTY ARE EXCLUSIVE AND MANY NOT BE ALTERED, ENLARGED, OR CHANGED BY ANY DISTRIBUTOR, DEALER, OR OTHER PERSON WHATSOEVER.

ALL WORK UNDER THE TERMS OF THIS WARRANTY SHALL BE PERFORMED DURING NORMAL WORKING HOURS. AL REPLACEMENT PARTS, WHETHER NEW OR REMANUFACTURED, ASSUME AS THEIR WARRANTY PERIOD ONLY THE REMAINING TIME PERIOD OF THIS WARRANTY.

THE MANUFACTURER WILL NOT BE RESPONSIBLE FOR:

1. Normal maintenance as outlined in the installation and servicing instructions or owners manual including filter cleaning and/or replacement and lubrication.
2. Damage or repairs required as a consequence of faulty installation, misapplication, abuse, improper servicing, unauthorized alteration or improper operation.
3. Failure to start due to voltage conditions, blown fuses, open circuit breakers or other damages due to the inadequacy or interruption of electrical service.
4. Damage as a result of floods, winds, fires, lightning, accidents, corrosive environments or other conditions beyond the control of the Manufacturer.
5. Parts not supplied or designated by the Manufacturer, or damages resulting from their use.
6. Manufacturer products installed outside the continental U.S.A., Alaska, Hawaii, and Canada.
7. Electricity or fuel costs or increases in electricity or fuel costs from any reason whatsoever including additional or unusual use of supplemental electric heat.
8. ANY SPECIAL INDIRECT OR CONSEQUENTIAL PROPERTY OR COMMERCIAL DAMAGE OF ANY NATURE WHATSOEVER. Some states do not allow the exclusion of incidental or consequential damages, so the above may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which may vary form state to state.